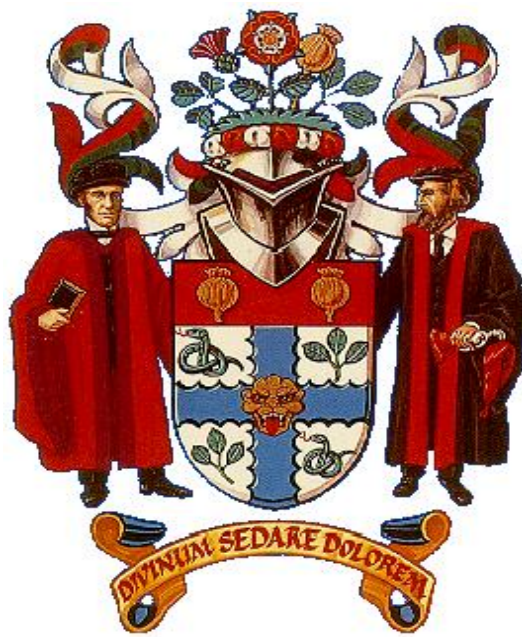# CCT in Anaesthetics

Intermediate Level Training Certificate

Health Education England (West Midlands)

Training Guidebook

Guidance for Intermediate Level Anaesthetic Trainees

Welcome to Health Education England (West Midlands) Schools of Anaesthesia

You have embarked on a five year Specialist Training Programme and hopefully a successful career in Anaesthesia. Your West Midlands trainers hope very much that you will enjoy the experience & challenges ahead.

Your training will be in one of the 3 schools:

- Birmingham School of Anaesthesia
- Warwickshire School of Anaesthesia
- Stoke School of Anaesthesia

CCT in Anaesthesia

The curriculum is divided into stages of training:

- Introduction to Anaesthesia   First 3-6 months   CT1
- Core Level Training   6 months - 2 years   CT1 and CT2
- **Intermediate Level Training   Years 3 and 4   ST3 and ST4**
- Higher Level Training   Years 5 and 6   ST5 and ST6
- Advanced Level Training   Year 7   ST7

This work book covers the **Intermediate Level Training**

Intermediate Level Training is divided into 7 essential and 3 optional Units of Training. All Units of Training have formal Work Place Based Assessments (WPBA) identified for them by the RCoA. The minimum standard Set by the RCoA is to undertake one of each relevant WPBA for each Unit of Training (A-CEX, DOPS, CBD, ALMAT). Each School of Anaesthesia is then encouraged to set their own expectations <u>above and beyond</u> this in order to complete each Unit of Training.

Completion of Units of Training

In order to complete a Unit of Training and sign off a CUT form, the trainee must demonstrate:

- Achievement of all the Learning Outcomes
- Completion of WPBA's necessary set out in this workbook
- Logbook review
- MSF (if appropriate)
- Consultant Feedback

Certificates to be gained in this stage of training

- ILTC   Intermediate Level Training Certificate
  - On completion of Intermediate Level Training in Anaesthesia (end of ST4)
    - Completion of all Essential Units of Training
    - Final FRCA

For further details regarding training in your School of Anaesthesia please visit your website

www.stokeanaesthesia.org.uk
www.thebsa.info
www.wsoa.org.uk

Guidance for Intermediate Level Anaesthetic Trainees

<u>Units of Training</u>

Unit of Training	Page Number	Essential Unit	Optional Unit	Suggested Time for Completion (months)	Minimum number of clinical half day sessions	Suggested Hospital for Completion
Anaesthesia for Neurosurgery, Neuroradiology and Neurocritical care	5	●		2	20	Royal Stoke (mandatory)
Cardiothoracic Anaesthesia and Cardiothoracic Critical Care	6	●		2	20	Royal Stoke New Cross
General duties (within this unit)		●				Any
- Airway management	7					
- Critical incidents	8					
- Day surgery	9			1		
- General, Urological and Gynaecological surgery	10			2		
- Head, Neck, Maxillo-facial and Dental surgery	11			2		
- Management of respiratory and cardiac arrest	12					
- Non-theatre	13					
- Orthopaedic surgery	14			1		
- Perioperative medicine	15					
- Regional	16					
- Sedation	17					
- Transfer medicine	18					
- Trauma and Stabilisation	19			1		
Intensive Care Medicine	20	●		3 months mandatory		Any
Obstetrics	21	●		2	20	Any
Paediatric	22	●		2	20	Any
Pain medicine	23	●		2	20	Any
Ophthalmic	24		●			Any
Plastics / Burns	25		●			Any
Vascular surgery	26		●			RSH/ Stoke

Guidance for Intermediate Level Anaesthetic Trainees

Courses

- Some individual Units of Training require completion of a relevant course or for a relevant course to be in date. For ease, below is a summary of such requirements.

Unit of Training	Course	Completion
Airway management	Difficult airway course	Mandatory
Critical incidents	Simulator course	CUT form can be achieved either with direct clinical experience via the specified WPBAs and consultant feedback or by attendance at a suitable simulator course.
Management of respiratory and cardiac arrest	ALS	Mandatory or course within date of expiry
	APLS / EPLS	Mandatory or course within date of expiry
Transfer medicine	Transfer training course	Mandatory
Trauma and stabilisation	ATLS or equivalent course	Only if you are not able to achieve the trauma competencies during your placements.

Anaesthesia for Neurosurgery, Neuroradiology and Neuro Critical Care

Core Clinical Learning Outcomes

- Deliver safe perioperative anaesthetic care to uncomplicated ASA 1-3 adult patients undergoing non-complex elective intracranial and spinal surgery with direct supervision.
- Deliver safe perioperative anaesthetic care to uncomplicated ASA 1-3 adult patients undergoing non-complex emergency surgery with distant (or indirect) supervision (e.g. insertion of V-P shunt/EVD).
- Be an effective team member for resuscitation, stabilisation and transfer of adult patients with brain injury with distant supervision (this could also be completed during an ICM unit – see ICM training summary).

Unit Requirements

- Minimum of 20 clinical sessions.
- WPBA's as indicated.
- Consultant feedback (sought by the module lead from other neuro consultants)
- CUT form on e-Portfolio.

e-Portfolio WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Craniotomy	1	NA_IS_03
	Shunt surgery		NA_IS_03
	Cervical and lumbar spinal surgery		NA_IS_03
	Emergency neurosurgery in acute head injuries		NA_IS_05
DOPS	Induction of GA with TCI propofol	1	NA_IS_04
	Safe patient positioning – prone, lateral (park bench)		NA_IS_06
	Manage emergence from anaesthesia in a smooth and controlled way		NA_IS_13
	Resuscitate, stabilise and transfer safely patients with a brain injury		NA_IS_07
CbD	Emergency case with indirect supervision	1	NA_IS_03
	Spinal surgery e.g. lumbar microdiscectomy, cervical laminectomy, anterior cervical discectomy		NA_IS_03
	Shunt surgery e.g. insertion of VP shunt, revision of VP shunt, insertion of LP shunt		NA_IS_03
	Neuroradiology e.g. emergency and elective imaging, interventional procedures		NA_IK_10

Intermediate Level Anaesthetic Competencies

Cardiothoracic Anaesthesia & Cardiothoracic Critical Care

Core Clinical Learning Outcomes
• Deliver safe and effective perioperative anaesthetic care to patients undergoing elective coronary artery surgery and minor thoracic investigative procedures under direct supervision.
Unit Requirements
• Logbook of 10 pump cases.
• Minimum of 20 clinical sessions.
• WPBA's as indicated.
• Consultant feedback (sought by the module lead from other cardiac consultants)
• CUT form on e-Portfolio.

e-Portfolio WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Coronary artery and/or valve surgery on cardio-pulmonary bypass	1	CT_IS_03
	Methods used to cool and re-warm patients during cardiac surgery, and the complications		CT_IK_11
	Indications for cardiac pacing and the different modes available		CT_IK_13
	Manage a patient undergoing one lung ventilation		CT_IS_14
DOPS	Establish anaesthesia including invasive arterial and central venous monitoring	1	CT_IS_05
	Insert a double lumen endobronchial tube		CT_IS_11
	Use of inotropes and vasodilators		CT_IS_06
	Forms postoperative care plans including postoperative analgesia and respiratory support		CT_IS_04
CbD	Coronary artery and/or valve surgery on cardio-pulmonary bypass	1	CT_IS_03
	Principles of cardiopulmonary bypass including the use of cardioplegia		CT_IK_02
	Post-cardiac surgery problems e.g. bleeding, cardiac tamponade (clinical signs and symptoms, and management)		CT_IK_09
	One lung ventilation e.g. changes that occur and the strategies to manage these changes		CT_IK_22

Intermediate Level Anaesthetic Competencies

Airway Management

This unit may be completed as part of the 'Head, neck, maxillo-facial and dental surgery' unit of training.

Core Clinical Learning Outcomes
- To be able to demonstrate the ability to perform elective fibre-optic intubation, either for an awake or an anaesthetised patient, with local supervision.

Unit Requirements
- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on e-Portfolio.

e-Portfolio WPBA	Index Case(s)	Minimum Number	Code
Certificate Uploaded	Difficult airway course	1	All
A-CEX	Management of case involving a difficult airway	1	AM_IK_03
	Anaesthetic principles for tracheostomy		AM_IK_05
	Risks & benefits of using various supra-glottic airways for IPPV		AM_IK_10
	Safe use of equipment and airways devices used for surgery on and below the vocal cords		AM_IK_12
DOPS	Fibre-optic intubation with patient asleep or awake	1	AM_IS_01
	Teaching of basic airway manoeuvres, direct laryngoscopy and endotracheal intubation to novice students (e.g. nurses, CT1 anaesthetic trainees, paramedics, medical students)		AM_IS_02
CbD	Management of the obstructed/misplaced tracheostomy	1	AM_IK_06
	Specialised airway techniques used for laser surgery in, or near, the airway		AM_IK_07
	Discuss appropriate follow up of an unexpected difficult intubation		AM_IK_09
	Describe the principles of jet ventilation		AM_IK_13
ALMAT	Manage an operating list	1	All

Critical Incidents

Core Clinical Learning Outcomes
• To demonstrate leadership in the management of critical incidents as and when they arrive.
• To provide assistance/leadership to more inexperienced colleagues if called to assist in the management of critical incidents.
• To demonstrate leadership in ensuring good team work and communication to help reduce the risks of harm from critical incidents.

Unit Requirements
- Unit of training sign off can be achieved either with direct clinical experience via the specified WBPA's below, or by attendance at a suitable simulator course.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on e-Portfolio.

e-Portfolio WPBA	Index Case(s)	Minimum Number	Code
Certificate Uploaded	Critical Incidents Simulation course. This can be used as an **alternative** to the WPBA's below	1	All
CbD	Discusses the importance of significant event analysis or root cause analysis to examine a locally reported incident	1	CI_IK_01
	Discusses the importance of regular practice of response protocols using simulation and their place in the development of team working and communication between professional groups		CI_IK_02

Intermediate Level Anaesthetic Competencies

Day Surgery

Core Clinical Learning Outcomes
- Deliver safe perioperative anaesthetic care to ASA 1-3 patients having more extensive or specialized day surgery procedures with direct supervision.

Unit Requirements
- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on e-Portfolio.

e-Portfolio WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Knee arthroscopy	1	DS_IS_01
	Excision of lymph node		DS_IS_01
	Excision of breast lump		DS_IS_01
	Inguinal hernia repair		DS_IS_01
	Varicose vein surgery		DS_IS_01
CbD	Discuss the delivery of safe perioperative anaesthetic care for patients with significant co-morbidities e.g. obese patients (BMI > 35), insulin dependent diabetics, significant cardiac and respiratory diseases, elderly patients	1	DS_IS_01
ALMAT	Manage an operating list	1	All

General, Urological and Gynaecology Surgery (Incorporating Peri-Operative Care of the Elderly)

Core Clinical Learning Outcomes
- Deliver safe perioperative anaesthetic care to complex ASA 1-3 adult patients requiring elective and emergency intra-abdominal surgery (both laparoscopic and open) with distant supervision.
- Manage a list with complex ASA 1-3 adult patients for elective and emergency surgery in all disciplines with distant supervision.

Unit Requirements
- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on e-Portfolio.

e-Portfolio WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Anaesthesia for colo-rectal surgery	1	GU_IK_01
	Laparoscopic surgery		GU_IK_01
	Commoner complex case e.g. oesophagectomy (including one lung ventilation), pancreatic and liver resection, resection of neuroendocrine tumours (e.g. carcinoid and phaeochromocytoma), splenectomy, resection of retroperitoneal masses (including management of pleural breach)		GU_IK_01
	Effects of chemotherapy/radiotherapy, and the implications for anaesthesia		GU_IK_02
CbD	Anaesthetic complications related to disturbance of fluid balance, oedema, and dehydration	1	GU_IK_07
	Anaesthetic implications of bariatric surgery		GU_IK_08
	Principles of enhanced recovery programmes		GU_IK_09
	Principles of perioperative haemodynamic management and optimisation		GU_IK_10
ALMAT	Manage an operating list with a mixture of ASA 1- 3 cases	1	GU_IS_04

Head, Neck, Maxillo-Facial and Dental Surgery

Core Clinical Learning Outcomes
• Deliver safe perioperative anaesthetic care to ASA 1-3 adult patients requiring routine and emergency non-complex minor/intermediate ENT and maxillo-facial surgery (including list management) under distant supervision.
Unit Requirements
• WPBA's as indicated.
• Consultant feedback (sought by the supervisor during general duties within the last six months)
• CUT form on e-Portfolio.

e-Portfolio WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Middle ear surgery including hypotensive techniques	2	EN_IK_02
	Microlaryngoscopy including use of LASER		EN_IS_06
	Dental extraction		EN_IS_05
	Management of fractured jaw		EN_IS_07
CbD	Principles of anaesthesia for middle ear surgery, including use of TIVA and hypotensive techniques	1	EN_IK_02
	Pathophysiological changes and co-morbidities associated with head and neck cancer		EN_IK_03
	Emergency management of fractures of the face including le Fort fractures and fractures of the mandible		EN_IK_12
	Principles of the recognition and appropriate management of acute ENT emergencies, including bleeding tonsils, epiglottis, croup, and inhaled foreign body		EN_IK_11
ALMAT	Manage an operating list	1	All

Management of Respiratory and Cardiac Arrest in Adults and Children

Core Clinical Learning Outcomes			
• Is an effective member of the multi-disciplinary member of the resuscitation team and takes responsibility for the initial airway management.			
Unit Requirements			
• WPBA's as indicated.			
• Consultant feedback (sought by the supervisor during general duties within the last six months)			
• CUT form on e-Portfolio.			

e-Portfolio WPBA	Index Case(s)	Minimum Number	Code
Certificate Uploaded	ALS	1	All
	APLS/EPLS	1	All
DOPS	Demonstrates the treatment of arrhythmias using drugs and cardioversion	1	RC_IS_02
	Demonstrates leadership during resuscitation, including supporting less experienced members of the team		RC_IS_05
	Demonstrates ability to teach and assess basic level competencies		RC_IS_06
	Demonstrates ability to provide feedback to staff and relatives in post-resuscitation attempts debriefs		RC_IS_05

Intermediate Level Anaesthetic Competencies

Non-Theatre

Core Clinical Learning Outcomes
- To deliver safe peri-procedure anaesthesia/sedation to adult patients outside the operating theatre, but within a hospital setting, for painful or non-painful therapeutic/diagnostic procedures under supervision.

Unit Requirements
- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on e-Portfolio.

e-Portfolio WPBA	Index Case(s)	Minimum Number	Code
A-CEX	General anaesthesia for adult patient undergoing imaging procedure	1	DI_IK_01
	General anaesthesia for adult patient undergoing ECT		DI_IK_06
	General anaesthesia for adult patient undergoing cardioversion		DI_IK_02
CbD	Sedation for patients in the non-theatre environment	1	DI_IK_02
	Problems of providing safe post- anaesthetic care for patients in the out of theatre environment		DI_IK_03
	Safety precautions required in the MRI environment		DI_IK_04
	Discuss the rationale behind the choice of anaesthetic technique for ECT		DI_IK_06

Intermediate Level Anaesthetic Competencies

Orthopaedic Surgery
(Incorporating Peri-Operative Care of the Elderly)

<table>
<tr>
<td colspan="4">
Core Clinical Learning Outcomes

Deliver safe perioperative anaesthetic care to complicated ASA 1-3 adult patients for all elective and emergency orthopaedic/trauma surgery identified at the Basic Level as well as those requiring lower limb primary joint replacement surgery.
Manage elective and emergency operating sessions with such patients with distant supervision.

Unit Requirements

WPBA's as indicated.
Consultant feedback (sought by the supervisor during general duties within the last six months)
CUT form on e-Portfolio.

</td>
</tr>
<tr>
<th>e-Portfolio WPBA</th>
<th>Index Case(s)</th>
<th>Minimum Number</th>
<th>Code</th>
</tr>
<tr>
<td rowspan="3">A-CEX</td>
<td>Lower limb joint replacement</td>
<td rowspan="3">1</td>
<td>OR_IK_01</td>
</tr>
<tr>
<td>Scoliosis surgery</td>
<td>OR_IK_02</td>
</tr>
<tr>
<td>Spinal surgery</td>
<td>OR_IK_02</td>
</tr>
<tr>
<td colspan="4"></td>
</tr>
<tr>
<td rowspan="3">CbD</td>
<td>Anaesthetic and surgical complexity between primary and secondary lower limb arthroplasty</td>
<td rowspan="3">1</td>
<td>OR_IK_01</td>
</tr>
<tr>
<td>Blood conservation strategies that are used in orthopaedic surgery</td>
<td>OR_IK_04</td>
</tr>
<tr>
<td>Discuss the delivery of safe perioperative anaesthetic care in an elderly patient with significant co-morbidities</td>
<td>OR_IS_01</td>
</tr>
<tr>
<td colspan="4"></td>
</tr>
<tr>
<td>ALMAT</td>
<td>Manage an operating list</td>
<td>1</td>
<td>All</td>
</tr>
</table>

Intermediate Level Anaesthetic Competencies

Perioperative Medicine

<table>
<tr><td colspan="5">Core Clinical Learning Outcomes
• To deliver high quality preoperative assessment, investigation and management of ASA 1-4 patients for elective and emergency surgery
• To deliver high quality individualised anaesthetic care to ASA 1-3 [E] patients, focusing on optimising patient experience and outcome
• To plan and implement high quality individualised post-operative care for ASA 1-3 [E] patients
Unit Requirements
• WPBA's as indicated.
• Consultant feedback (sought by the supervisor during general duties within the last six months)
• CUT form on e-Portfolio.</td></tr>
<tr>
<th>e-Portfolio WPBA</th>
<th>Index Case(s)</th>
<th>Minimum Number</th>
<th>Code</th>
</tr>
<tr>
<td>A-CEX</td>
<td>Liaises effectively with colleagues in Intensive Care in planning care</td>
<td>1</td>
<td>POM_IS_02</td>
</tr>
<tr>
<td></td>
<td>Explains risks and benefits of available anaesthetic techniques to patients in a manner they can understand</td>
<td></td>
<td>POM_IS_03</td>
</tr>
<tr>
<td></td>
<td>Formulates an individualised perioperative plan with the patient, using an evidence-based approach</td>
<td></td>
<td>POM_IS_04</td>
</tr>
<tr>
<td></td>
<td>Balances the need for early surgery against the need for further investigation, pre-habilitation and pre-optimisation</td>
<td></td>
<td>POM_IS_05</td>
</tr>
<tr><td colspan="4"></td></tr>
<tr>
<td>CbD</td>
<td>Recalls the principles of enhanced recovery pathways and planning of post-operative care</td>
<td>1</td>
<td>POM_IK_04</td>
</tr>
<tr>
<td></td>
<td>Describes appropriate preoperative strategies for minimising the use of blood products</td>
<td></td>
<td>POM_IK_07</td>
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<tr>
<td></td>
<td>Describes rationale for point of care testing and how the results may influence treatment</td>
<td></td>
<td>POM_IK_13</td>
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<tr>
<td></td>
<td>Explains how a multidisciplinary team approach improves patient recovery and outcomes</td>
<td></td>
<td>POM_IK_16</td>
</tr>
<tr><td colspan="4"></td></tr>
<tr>
<td>ALMAT</td>
<td>Attends a medically led pre-operative assessment clinic and conducts a comprehensive pre-operative assessment for a patient with multiple co-morbidities</td>
<td>1</td>
<td>POM_IS_08</td>
</tr>
</table>

Intermediate Level Anaesthetic Competencies

Regional

Core Clinical Learning Outcomes
• Perform a thoracic epidural and/or combined spinal/epidural under local supervision.
• Perform an upper/lower limb plexus block with peripheral nerve stimulation or ultrasound guidance under local supervision.
Unit Requirements
• WPBA's as indicated. (E) = Essential and must be completed in years 3 and 4.
• Consultant feedback (sought by the supervisor during general duties within the last six months)
• CUT form on e-Portfolio.

e-Portfolio WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Management of a patient with regional blockade as sole form of anaesthesia	1	RA_IS_01
	Principles of ultra sound guided nerve blocks		RA_IK_05
DOPS	Brachial Plexus Block (E)	E	RA_IS_04
	Upper Limb Block (elbow or wrist)		RA_IS_04
	Sciatic Nerve Block (E)		RA_IS_04
	Femoral Nerve Block (E)		RA_IS_04
	Lumbar Plexus Block		RA_IS_04
	Popliteal / Ankle Nerve Block		RA_IS_04
	Biers Block		RA_IS_04
	Epidural (E)		RA_IS_04
	Spinal (E)		RA_IS_04
	CSE		RA_IS_04
	Use of peripheral nerve stimulator		RA_IS_04
	Use of ultrasound		RA_IS_04
CbD	Management of a patient with regional blockade combined with a general anaesthetic	1	RA_IS_01
	Choice of local anaesthetic agents, opioids, use of additives and techniques of administration		RA_IK_03
ALMAT	Manage an operating list	1	All

Intermediate Level Anaesthetic Competencies

Sedation

Core Clinical Learning Outcomes
- To recognise the important principal of minimum intervention, where the simplest and safest technique which is likely to be effective is used to achieve the clinical goal.

- Provision of safe and effective sedation to any adult patient using multiple drugs if required.

Unit Requirements
- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on e-Portfolio.

e-Portfolio WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Use of sedation in an adult patient	1	CS_IS_02
	Target-controlled infusions (TCI)		CS_IK_04
CbD	Discusses the unpredictable nature of sedation techniques in the 'extremes of life' and strategies for safe delivery	1	CS_IK_06
	Discusses the use of sedation in the high risk patient and the advantages/disadvantages of using general anaesthesia as opposed to sedation to cover necessary investigations/procedures in such patients		CK_IK_07
ALMAT	Manage an operating list	1	All

August 2016

Intermediate Level Anaesthetic Competencies

Transfer Medicine

Core Clinical Learning Outcomes
- To deliver safe and efficient transfer [with distant supervision] of complex patients for intra-hospital including retrieving a newly referred ITU patient from A&E or the wards.   - To deliver safe and efficient transfer [with distant supervision] of an uncomplicated ventilated patient for inter-hospital transfer by land [less than 4 hours].

Unit Requirements
- Log book of transfer cases.
- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on e-Portfolio.

e-Portfolio WPBA	Index Case(s)	Minimum Number	Code
Certificate Uploaded	Transfer Training Course	1	All
A-CEX	Inter-hospital transfer of adult patient	1	TF_IS_02
	Intra-hospital transfer of adult patient		TF_IS_01
CbD	Discuss the increased risks to critically ill patients of transfer and the reasons for these risks	1	TF_IK_04
	Discuss a time-critical transfer		TF_IK_07
	Discuss the specific considerations for transfer of patients with specific clinical conditions e.g, - Head, spinal, thoracic and pelvic injuries - Critically ill medical patients - Burns - Children - Pregnant women		TF_IK_09
	Discuss the reasons for patients becoming unstable during transfer and strategies for management		TF_IK_16
ALMAT	Manage an operating list	1	All

Intermediate Level Anaesthetic Competencies

Trauma and Stabilisation

Core Clinical Learning Outcomes
- Be an effective member of the multi-disciplinary trauma team and takes responsibility for the initial airway management of the multiply injured patient with distant supervision.
- Be able to manage acute life-threatening airway problems safely and effectively with distant supervision. (This can also be assessed in the 'Airway management' or 'Head, neck, maxillo-facial and dental surgery' unit of training.)
- Provide safe perioperative anaesthetic care [from arrival in the Emergency Department through to post-operative discharge to the ward from recovery or intensive care] for ASA 1-3 patients with multiple injuries with distant supervision, whilst demonstrating understanding of knowing when to seek senior help.

Unit Requirements
- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on e-Portfolio.

e-Portfolio WPBA	Index Case(s)	Minimum Number	Code
Certificate	ATLS or equivalent course	1	All
CbD	Management of a multiply injured patient	1	MT_IS_04
	Strategies for minimising secondary brain injury		MT_IK_04
	Management of a patient with e.g. severe burns, electrical injuries, drowning, near-drowning, hypothermia		MT_IK_05
	Management of coagulopathy, hypothermia and acidosis in multiply injured patients		MT_IK_07
ALMAT	Manage safe perioperative anaesthetic care [from arrival in the Emergency Department through to post-operative discharge to the ward from recovery *or* intensive care] for ASA 1-3 patients with multiple injuries with distant supervision	1	All

Intensive Care Medicine

Please refer to the separate Intensive Care Medicine guidebook available on the Stoke school website.

Intermediate Level Anaesthetic Competencies

Obstetrics

Core Clinical Learning Outcomes
• Able to provide emergency and non-emergency obstetric anaesthetic care in the majority of patients including those with co-morbidities and obstetric complications with distant supervision.
• Perform immediate resuscitation of acute obstetric emergencies.
Unit Requirements
• Minimum of 20 clinical sessions.
• Consultant feedback (sought by the module lead from other obstetric consultants)
• CUT form on e-Portfolio.

e-Portfolio WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Management of a patient for elective caesarean section	1	OB_IS_07
	Management of a patient for emergency caesarean section		OB_IS_07
	Anaesthetic management of multiple pregnancy		OB_IK_03
	Post-dural puncture headache		OB_IK_07
DOPS	Epidural analgesia for labour	1	OB_IS_03
	Spinal anaesthetic		OB_IS_03
	CSE (optional)		OB_IS_03
	Intravenous opiate analgesia including PCA for labour		OB_IS_04
CbD	Management of parturient with post-partum haemorrhage	1	OB_IS_01
	Management of parturient with hypertensive disease of pregnancy		OB_IS_01
	Management of parturient with BMI above 35		OB_IS_01
	Management of parturient with inadvertent dural puncture		OB_IS_08

Intermediate Level Anaesthetic Competencies

Paediatrics

Core Clinical Learning Outcomes			
• Deliver safe perioperative anaesthetic care to ASA 1 and 2 children aged 5 years and over for minor elective and emergency surgery (e.g. inguinal hernia repair, orchidopexy, circumcision, superficial plastic surgery, grommets, manipulation of fractures, appendicectomy) with distant supervision.			

Unit Requirements
- Minimum of 20 clinical sessions.
- Consultant feedback (sought by the module lead from other paediatric consultants)
- CUT form on e-Portfolio.

e-Portfolio WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Inguinal hernia / PPV ligation / orchidopexy / circumcision / hypospadias repair	1	PA_IS_03
	Tonsillectomy / adenotonsillectomy		PA_IS_03
	Squint repair		PA_IS_03
	Preoperative assessment in all ages down to 1 year		PA_IS_02
DOPS	Gas induction	2	PA_IS_03
	IV cannulation of the infant/child		PA_IS_03
	Use of T-piece and mask to maintain spontaneous ventilation/assisted ventilation		PA_IS_03
	Intubation in child		PA_IS_03
CbD	Postoperative pain management	1	PA_IS_07
	Discuss the implications of paediatric medical and surgical problems e.g, major congenital abnormalities, congenital heart disease, Down's Syndrome		PA_IK_02
	Thermoregulation in the newborn and measures to prevent hypothermia		PA_IK_06
	Management of perioperative physiology e.g. glucose, fluids and temperature in children		PA_IS_05

Intermediate Level Anaesthetic Competencies

Pain Medicine

Wherever possible this unit should be completed as a dedicated block.

Core Clinical Learning Outcomes
- To be competent in the assessment and management of acute surgical and non-surgical pain in most patient groups and circumstances.

- To be an effective member of the acute pain team.

- To understand the importance of managing acute on chronic pain in a timely manner.

- To have knowledge of assessment and management of chronic and cancer pain.

Unit Requirements
- Minimum of 20 clinical sessions.
- Evidence of:
    - Number of chronic pain clinics attended.
    - Number of chronic pain procedure lists attended.
    - Number of acute pain ward rounds attended.
- WPBA's as indicated.
- Consultant feedback (sought by the module lead from other pain consultants)
- CUT form on e-Portfolio.

e-Portfolio WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Taking history from chronic pain patient	1	PM_IK_04
	Management of acute pain round (observed – this may be by pain nurse)		PM_IS_01
DOPS	Facet joint injection	1	PM_IS_06
	Chronic pain epidural		PM_IS_06
	Post-op pain relief procedure eg PCA set up		PM_IS_02
CbD	Management of acute surgical pain	1	PM_IS_02
	Management of neuropathic pain		PM_IS_09
	Management of cancer pain patients		PM_IS_07
	Management of chronic pain in adults		PM_IK_04

Intermediate Level Anaesthetic Competencies

Ophthalmic

	Core Clinical Learning Outcomes
	• Deliver safe perioperative anaesthetic care to adults and children requiring routine ophthalmic surgery under direct supervision, and emergency anaesthesia for ASA 1 and 2 patients requiring minor/ intermediate ophthalmic surgery under distant supervision.
	• Demonstrates the ability to provide local anaesthesia for eye surgery with competence in one technique.

Unit Requirements
- WPBA's as indicated.
- Consultant feedback (sought by the module lead from other opthalmic consultants)
- CUT form on e-Portfolio.

e-Portfolio WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Cataract surgery under local anaesthesia	1	OP_IS_03
	Eye surgery under general anaesthesia		OP_IS_04
DOPS	Sub-Tenon block (E)	E	OP_IS_08
	Peribulbar block		OP_IS_08
CbD	Risks associated with needle blocks	1	OP_IK_16
	Techniques of local anaesthesia available for ophthalmic surgery		OP_IK_15
	Special requirements of children undergoing ophthalmic surgery		OP_IK_11
	Sedation techniques for ophthalmic procedures		OP_IK_12

(E) = Essential and must be completed in years 3 and 4.

Intermediate Level Anaesthetic Competencies

Plastics / Burns

Core Clinical Learning Outcomes
• Delivers safe perioperative anaesthetic care to ASA 1-3 adult patients for minor to intermediate plastic surgery (e.g. tendon repair or split skin grafting) with distant supervision.

Unit Requirements
- WPBA's as indicated.
- Consultant feedback (sought by the module lead from other burns/plastics consultants)
- CUT form on e-Portfolio.

e-Portfolio WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Excision and grafting of major burn (>15% BSA in one session)	1	PL_IK_07
	SSG to burn		PL_IK_07
	Anaesthesia for facial / airway burn		PL_IK_05
	Major free-flap repair e. g. DI-EPP flap breast reconstruction		PL_IK_03
	Rotational flap		PL_IK_02
	Breast augmentation		PL_IK_02
	Abdominoplasty		PL_IK_02
DOPS	Fluid therapy of the burned patient	1	PL_IS_03
	Pharmacological (including induced hypotension) and non-pharmacological methods to improve the surgical field		PL_IS_02
CbD	Airway management of a facial burn	1	PL_IK_05
	Factors affecting tissue blood flow in free-flap surgery		PL_IK_03
	Major reconstructive plastic procedures		PL_IK_02
	Management of burns patients for surgery		PL_IK_07

Intermediate Level Anaesthetic Competencies

Vascular Surgery

Core Clinical Learning Outcomes
- To gain knowledge of the perioperative anaesthetic management of patients undergoing elective and emergency abdominal aortic surgery and newer stenting techniques.

- To anaesthetise patients for carotid endarterectomy and aortic aneurysm surgery with direct supervision.

Unit Requirements
- WPBA's as indicated.
- Consultant feedback (sought by the module lead from other obstetric consultants)
- CUT form on e-Portfolio.

e-Portfolio WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Abdominal aortic aneurysm, elective or emergency open repair	1	VS_HS_03
	EVAR		VS_HS_04
DOPS	CVP line insertion	Not essential for vascular sign off	VS_HS_03
	A-line insertion		VS_HS_03
	Thoracic epidural		VS_HS_06
	Use of cell saver		VS_HS_03
CbD	Management of a peripheral vascular graft	1	VS_IK_04
	Management of elective carotid artery surgery with general or regional anaesthesia		VS_IK_07
	Aortic cross-clamping and of renal protection strategies		VS_IK_13
	Management of ruptured aortic aneurysms		VS_IK_05